Introduction to Sahana

“No innovation matters more than that which saves lives”

Avelino J. Cruz, Jr., Secretary of National Defense of the Philippines on the use of Sahana following disastrous mudslides in 2005
Introduction to Sahana

- Open Source Disaster Management Platform
- Helps organizations and communities prepare for and respond to disasters
- Deployed in over 25 countries
- Used by many different organizations including:
  - Red Cross
  - UN
  - national and local governments
  - local community groups
Indian Ocean Tsunami 2004

- Sri Lanka IT devs get together to solve the key problem of their time: Missing Persons
How can Technology Help?

- **Scalable** management of information
  - No stacks of forms and files to manage
- **Efficient** distribution of information
  - Accessibility of information on demand
- **Automatic** collation and calculation
  - No delay for assessments and calculations
- **Live** situational awareness
  - Reports are updated live as data is entered
How does Sahana Help?

- Provides a directory of organizations, offices and people
  - supports communication and coordination
- Records what resources are available and where
- Shares information on Who’s Doing What Where
  - identifies where there are gaps and overlaps
- Manages and integrates multiple types of information in a single platform
  - provides situational awareness
Sahana’s Features

- **Authorization:** All data is controlled by configurable permissions which allow for granular access by user, organization or office.
- **Mapping:** All geographic data can be displayed on maps.
- **Reporting:** All data can be filtered and viewed as pivot tables and charts.
- **Data Integration:** Data import/export to Spreadsheets, Web Services via RESTful API (XML / JSON).
- **Communications:** Can send / receive messages over many different channels (Email, SMS, Twitter, etc).
- **Customisable:** Can be adapted to local contexts.
Multi-Stakeholder Authorization

- Control access:
  - across multiple organizations
  - within organizational hierarchy
Identifying where the greatest needs are
Communications & Social Media

General Public

Unverified

Firewall

Verify Categorise Prioritise

Pre-Verified

EOC

Professional Responders

Publish to all Official Channels

Trusted Partners
Using Sahana

- Licensed under the open source MIT License
- Anyone is permitted to download, install and customize Sahana
- You are encouraged to join the global community to share help and support

Resources & Community Support
- Wiki: http://eden.sahanafoundation.org
- Mailing List: http://groups.google.com/group/sahana-eden
Case Studies
Non-Governmental Organizations

- Red Cross / Red Crescent
  - Resource Management System
- Asia Disaster Preparedness Center
  - Disaster Risk Reduction (DRR) Project Portal
- UN-OCHA
  - Humanitarian Data Platform
- Occupy Sandy
  - NYC Prepared
Governments

- Timor-Leste
  - Disaster Risk Management Information System
- Philippines
  - Relief Goods & Inventory Management System
- Washington State, USA
  - Maritime Common Operating Platform
- Los Angeles, USA
  - Give2LA
Resource Management System

International Federation of Red Cross and Red Crescent Societies (IFRC)
Resource Management System

International Federation of Red Cross and Red Crescent Societies

- Used by national societies in all regions:
  - Africa, Americas, Middle East and Asia Pacific

- Manage
  - Staff, Volunteers, Members
  - Warehouses, Assets
  - Assessments, Projects

- Tool for Organizational Development
Background

Declaration at 7th Asia Pacific Conference, in Singapore 2006 IFRC:

“...will call on all National Societies to develop and use a **disaster management resource mapping database** at national and regional levels based on guidelines established by the Federation. The database should be **easily accessible** and kept up to date as an **operational tool for disaster response**”
Development Timeline

- **2011**
  - RMS 1.0
  - Assessment Module
  - Project Module
  - Membership Module
- **2012**
  - RMS 2.0
  - Vulnerability Module
- **2013**
  - RMS 2.5
  - Regional Disaster Response Team Alerting Module
- **2014**
  - Outreach Module
**DRR Project Portal**

- [www.drrprojects.net](http://www.drrprojects.net)

- ISDR Asia Partnership

- Sharing Project Information to improve planning and programming on DRR

- 1245 Projects
"With over DRR 1,000 projects in the Asia-Pacific, and over 100 policies and strategies, the DRR Project portal is a one-stop resource to improve planning."

Latest Projects

**Avian and Human Influenza Control and Preparedness Emergency Project**
Lead Organization: Ministry of Health - Cambodia (MoH)
Start Date: 2008-03-24  Countries: Cambodia

**Capacity building in socio-economic assessment of disaster impacts**
Lead Organization: United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
Start Date: 2009-11-01  Countries: Korea, Republic of, Cambodia, Kazakhstan, Japan, Sri Lanka, Turkmenistan, Bangladesh, Tonga, Papua New Guinea, Solomon Islands, France, Lao People's Democratic Republic, Mongolia, Thailand, Afghanistan, Samoa, Fiji, India, Netherlands, Nauru, Malaysia, Azerbaijan, Timor-Leste, Tuvalu, Korea, Democratic People's Republic of, Armenia, Brunei Darussalam, United Kingdom, New Zealand, Pakistan, Singapore, Indonesia, Kiribati, Uzbekistan, Georgia, Maldives, Australia, Palau, Philippines, Turkey, China, Nepal, United States, Tajikistan, Bhutan, Micronesia, Federated States of, Marshall Islands, Kyrgyzstan

**Building resilience of vulnerable communities living in Disasters prone communes of Ha Tinh province**
### Regional Organisations

Showing 1 to 10 of 29 entries

<table>
<thead>
<tr>
<th>Name</th>
<th>Acronym</th>
<th>Type</th>
<th>Website</th>
<th>Region</th>
<th>Year</th>
<th>Notes</th>
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<tbody>
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<td>Applied Geoscience and Technology Division (SOPAC) of the Secretariat of the Pacific Community (SPC)</td>
<td>SOPAC</td>
<td>Regional Organisation</td>
<td><a href="http://www.sopac.org">http://www.sopac.org</a></td>
<td>Pacific</td>
<td>1972</td>
<td>21 Member Countries and Territories; Facilitator of the Pacific Regional Disaster Risk Management Network</td>
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<td>-</td>
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<td><a href="http://www.aseansec.org">http://www.aseansec.org</a></td>
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<td>Food and Agriculture Organisation</td>
<td>FAO</td>
<td>Regional Office</td>
<td><a href="http://www.fao.org">http://www.fao.org</a></td>
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<td>1945</td>
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<td>1995</td>
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<td>ILO</td>
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<td><a href="http://www.i%D0%BB%D0%BE.org">http://www.iло.org</a></td>
<td>-</td>
<td>1919</td>
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</table>

### Committees, Forums, Mechanism, Meetings and Networks

Showing 1 to 10 of 21 entries
## Project Matrix

### Report Options
- **Report of:** Hazards
- **Grouped by:** Countries
- **Value:** Project Title (Count)

### Filter Options
- Show

### Report Options
- Hide

### Submit
- Reset all filters

### Project Title (Count)

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Integration with RMS

DRR Project Portal

Project Data

Resource Management System

International Federation of Red Cross and Red Crescent Societies

adpc
ISDR
ADB

UNDP
OCHA
SOPAC
United Nations ESCAP
Humanitarian Data Platform

UNOCHA, Regional Office for Central Asia and Caucasus
Regional Office for Caucasus and Central Asia (ROCCA)

Humanitarian Data Platform

Maps

View maps of demographic and baselines to support vulnerability analysis and situational awareness

View Maps

<table>
<thead>
<tr>
<th>Country</th>
<th>Demographic Data</th>
<th>Vulnerability Data</th>
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<td>Admin 2</td>
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</table>
Humanitarian Data Platform

United Nations Office for Coordination of Humanitarian Affairs: Regional Office for the Caucasus and Central Asia

● Places
● Demographic Data
● Vulnerability Data
● Disasters

Data Repository  Charts  Maps
Disaster Risk Management System

National Disaster Operation Center - Timor-Leste
National Disaster Operation Center
Disaster Risk Management Information System (DRMIS)

- Used by multiple stakeholders in Timor-Leste
- "News Feed" for sharing situational awareness
- Profile Pages for
  - Organisations
  - Locations
  - Disasters
- Maps of Risk & Hazard Assessments
- Responsive Web Design for use on Mobiles
Timor-Leste Disaster Information System

Improving disaster prevention, preparedness and response in Timor-Leste.

Prevent
Share information to coordinate, cooperate, and collaborate with stakeholders in Timor-Leste to avoid potential adverse impacts of disasters through advanced actions

Prepare
Share information, knowledge and capacities to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events in Timor-Leste

Respond
Coordinate the provision of emergency services and assistance during or after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the needs of the people affected
LATEST INFORMATION

Assessment | Fatuleto | Zumalai | Covalima | 20 Sep 13 15:13
---|---|---|---|---
Assesmentu konaba victemia iha covalima
Admin User • National Disaster Operation Center (NDOC)

Assessment | Fatuleto | Zumalai | Covalima | 20 Sep 13 15:08
---|---|---|---|---
Hala’o Assessmento iha fatin refere
Joao Carlos Sing • National Disaster Operation Center (NDOC)

Plan | Dili | 21 Sep 13 15:05
---|---|---|---|---
IOM Prontu atu ajuda transporto (Kamioneta 3) ba resposta emergensia iha Covalima
Thomas Prozanato de Aroe Scoren • International Organization for Migration (IOM Timor-Leste)

Alert | Covalima | 20 Sep 13 14:57
---|---|---|---|---
Covalima udan tau to’o semana 1 lae pema tamba povo sira gosta tesi ei horis, etc.
Carmen doores da cruz • MTC/DNMG

Activity | Debos | Suai | Covalima | 21 Sep 13 14:55
---|---|---|---|---
Mercy corps halo actividades primeiro mak halo identikasun ba comunidade nehe mak infrenta udan bot hodi fahe terpal no halo evakuasaun ba comunidade nehe mak hela besik mota ibun
Francelino cardoso • Mercy Corps (MC)

Report | Covalima | 20 Sep 13 14:45
---|---|---|---|---
Inundasaun Suai iha ioron 19 de Setembro de 2013 NOC simu informasaun husi DOC (Sentru Operaasaun Distri Suai) katak aiontoce udan boot iha sub distrito Macatan no Suai Villa. Resultado husi udan boot ne’e, akontece inundasaun boot iha sub distrito rua nee. Iha Sub distrito Macatan iha Suco rua mak ateita maka’as mak hanesan; Suco becajasan no Suco Macatan, iha sub distrito Suai Vila ni liar mak hanesan suco Carmenasa no Suco Sual lori. Atuasaun PNTL Pntl distrito Covalima hui subdistrito seluk iha datan ana hodi be fo apoio PNTL iha sub distrito Macatan no Suai Villa, hodi. 
### LATEST INFORMATION

<table>
<thead>
<tr>
<th>Report</th>
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</thead>
<tbody>
<tr>
<td>Liquiça</td>
<td>Bazartoto</td>
</tr>
</tbody>
</table>

**Situational Report**

Jose Soares - Oxfam

<table>
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<tr>
<th>Incident</th>
<th>Location</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Lautém</td>
<td>02-15-2013 12:00</td>
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</table>

**Outbreak of Cholera**

Eduardo dos Santos - Mercy Corps (MC)

<table>
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<tr>
<th>Alert</th>
<th>Location</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Emera</td>
<td>Hatolia</td>
<td>02-05-2013 12:00</td>
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<table>
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<tr>
<th></th>
<th>Hatolia</th>
<th>Railaco</th>
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<tbody>
<tr>
<td>Alert</td>
<td>Emera</td>
<td>Hatolia</td>
</tr>
</tbody>
</table>

![Alert Icon]
Relief Goods and Inventory Management System (RGIMS)

Department of Social Welfare and Development, Philippines
Relief Goods and Inventory Management System (RGIMS)

- Department of Social Welfare and Development, Philippines
- Manages relief goods
- Monitor Warehouses
- Donor Reporting
- Used during Typhoon Haiyan
Relief Goods Inventory & Monitoring System

Manage Your Warehouse

Please Select a Warehouse Go

RGIMS aims to provide a reliable and accurate inventory control of the UNWFP and DSWD logistics management systems of tracking, monitoring and reporting of relief goods intake, warehousing and outflow of donations.

For more details on the RGIMS system please contact DSWD-NROC Office.

© 1998-2012, Department of Social Welfare and Development
Constitution Hills, Batasan Pambansa Complex, Quezon City, Philippines
Tel. (632)931-81-01 to 07
Background

- In disaster response the World Food Programme (WFP) distributes food through the Department of Social Welfare and Development (DSWD)

- WFP wanted to build DSWD’s capacity to manage warehouse inventory

- WFP selected Sahana to provide a Relief Goods and Inventory Management System (RGIMS)
Technology Transfer Program

- WFP engaged AidIQ to provide training for DSWD ICTMS (Information and Communications Technology Management Service)
- 2 Virtual Trainings
- Week Long Intensive Training
  - Sahana Fundamentals
  - Code Sprint
  - Implementation Planning
- Ongoing Support
Typhoon Haiyan

- DSWD were the biggest provider of relief goods after Typhoon Haiyan - which was managed using Sahana

- RGIMS was used to manage relief goods at 19 Warehouses

- When changes were needed the volunteer Sahana community provided these in < 24 hours
Maritime Common Operating Platform

Washington State, USA
WA State:

Maritime Common Operating Platform

- Alerts
- Incidents
- Resources
- Tasks
- Stakeholders

- Mapping
- Reports
- Cross Platform Data Integration
Sahana is a component of the Puget Sound Maritime Common Operating Picture (MCOP) platform in both large scale disaster management and Coordination of day-to-day activities and operations. More...
INCIDENT: SEATTLE TERMINAL 18 FIRE

- **Alerts**
  - Terminal 18, Seattle: 08:15
  
  Fire on Terminal 18

- **Resources**
  - Terminal 18, Seattle: 07:38
  
  1 Boats
  - Seattle Fire Department
  
  1 Vehicles
  - Seattle Fire Department

- **Tasks**
  - **Move ship OOCL London**
    
    Move to Location: Open water
    
    admin@example.com

  - **Move ship Northern Genius**
    
    Location: TBD by Coast Guard
    
    admin@example.com

  - **Move ship Seattle Bridge to Tacoma.**
    
    admin@example.com

  - **Seattle Terminal 18 Fire IAP**
    
    admin@example.com
Support the City of Los Angeles

Give2LA is the official website for the City of Los Angeles that provides information on volunteer and donation opportunities to support emergency preparedness, response, and recovery. Tax deductible contributions for Cash and Corporate in-kind items can be made through one or more of the non-profit organizations listed.

The spirit of philanthropy is an integral part of Los Angeles culture. Give2LA is a great way for individuals, groups, and organizations interested in volunteering to help worthy causes and efforts before, during, and after an emergency. Please register to receive notifications of future Requests for Volunteers and to apply for requests online.

DONATE

You
You can support our preparedness, response and recovery activities by making a monetary donation or by donating goods and services. CLICK HERE TO VIEW DONATION OPPORTUNITIES.

Corporations & Organizations
Corporations and Organizations can donate to support the City of Los Angeles, and also receive Situation Awareness Reports. CLICK HERE TO REGISTER.

VOLUNTEER

You
You can donate your time by becoming a volunteer to aid survivors of disasters or local emergencies. CLICK HERE TO VIEW REQUEST FOR VOLUNTEERS.

Organizations & Groups
Organizations and Groups can volunteer to support the City of Los Angeles, and also receive Situation Awareness Reports. CLICK HERE TO REGISTER.
Give2LA

- Los Angeles Emergency Management Department
- Volunteer and Donation Management
- Public Facing Server
- Integrated with Internal WebEOC software
- Translated into Spanish, Chinese, Korean, Japanese, Tagalog and Vietnamese
Integration with WebEOC

Volunteers

Public Sahana

Firewall

WebEOC

Web Services

Sahana

Synchronization

EOC Staff

Field Staff (Facility Admin)
Community Resilience Mapping Tool

Los Angeles County Department of Public Health
Sahana strengthens disaster resilience

Visualize your risks and resources, infrastructure and activities

MAKE A MAP

Build your community's resilience

1. Education
   “Our community billboard gets over 30 postings per week!”

2. Partnerships
   “Our schools, clinics, ports, and shops have all gotten to know each other.”

3. Engagement
   “We’ve identified the people in our community who need special help.”

4. Self-sufficiency
   “We’re holding monthly first aid trainings and CERT workshops.”

SHARE YOUR STORY
Los Angeles Community Resilience Mapping Tool

- **Managing Community Data on**
  - Organizations
  - Places
  - People
  - Hazards
  - Activities
  - Evacuation Routes

- **Mapping Community Data plus:**
  - US Census Data
  - USGS + FEMA Hazard Data
SandyRelief
NYC Prepared
New York
Hurricane Sandy

- Mark Prutsalis, Sahana Software Foundation Director lives in New York
- Engaged with Occupy Sandy movement who were providing grassroots relief
- Supported by
  - Global Sahana voluntary community
  - Sahana Volunteers on the ground
  - New York Technical Community
SANDY RELIEF

WELCOME!

1. If you need help, see if anyone is in the #SandyRelief chat room, or email us.

2. Thank you for donating your time!

COMMS

REQUEST SUPPLIES

REQUEST PEOPLE

DISPATCH

FULFILL REQUESTS

POWERED BY SAHANA EDEN
Requests…
Meals, Supplies, Volunteers
Transitioned into a longer term effort for community resilience

Lead by Sahana Director Devin Balkind

Encouraging collaboration between organisations & shared Inventory Management
NYC Prepared


If your organization is a member of one of the networks below, register for access or contact us.

<table>
<thead>
<tr>
<th>Name</th>
<th>Mission</th>
<th>Website</th>
<th>Meetings</th>
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<tbody>
<tr>
<td>Brooklyn LTRG</td>
<td>To assess and address the unmet needs of Brooklyn's residents impacted by S...</td>
<td><a href="http://brooklynrecovers.org/">http://brooklynrecovers.org/</a></td>
<td>Usually the first Monday of the month. See <a href="http://brooklynrecovers.org/">http://brooklynrecovers.org/</a> for details.</td>
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<tr>
<td>LES Ready</td>
<td>We are a coalition of community groups and institutions that will cooperati...</td>
<td><a href="http://lesready.org">http://lesready.org</a></td>
<td>10am every other Monday. See <a href="http://lesready.org/events/">http://lesready.org/events/</a> for details.</td>
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<tr>
<td>NYCVOAD</td>
<td>Strengthening the capabilities of organizations working together to relieve...</td>
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